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EXAMINER

WALDBAUM, SAMUEL A

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1792

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/583,700
Filing Date: April 04, 2007
Appellant(s): ROSENBAUER ET AL.

James Howard, Reg. No. 39,715
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 20, 2009 appealing from the Office action mailed March 9, 2009.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5873518	Richmond	02-1999
2004/00140677	Hengelein et al	07-2004
6319015	Fraunce	11-2001
2005/0106924	Roose	05-2005

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(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

35 USC 112 6th paragraph

1. The means for clause in claim 24 has been interpreted under 35 USC 112 6th paragraph.

The corresponding structure for this claim is found paragraph 25.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 13-16 rejected under 35 U.S.C. 103(a) as being unpatentable over *Richmond et al* (U.S. 5,873,518).

4. Claims 13-17: Richmond teaches a washing machine (fig. 1, thus a water bearing device) with magnetic valves for controlling the hot and cold water lines which is mounted the circuit board (col. 3, line 50-col. 4, line 10) with a sensor integrated with the valve components (fig. 3, part 72, col. 5, lines 15-42), with a microprocessor mounted on a circuit board (fig. 10, part 100,

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which is inherently a programmable controller). Richmond teaches that all the components are connected to an integrated circuit (fig. 10, col. 6, line 20-col. 7, line 35, where figure shows that the circuit, part 92 is one board with the components mounted there on), where the sensor has electrical connecting elements (fig. 6, part 78), and the valves have electrical connecting elements (fig. 2, parts 48 and 50). Richmond does not explicitly teach that the valves are directly mounted to the circuit board. However, Richmond teaches that the valves are electrically coupled to the circuit board (fig. 10, col. 7, lines 4-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have mounted the valve structure with sensor to the circuit board in apparatus Richmond to reduce the need for coupling wire and connectors.

Claims 18-20 and 22-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Richmond et al (U.S. 5,873,518) as evidenced by Hengelein et al (U.S. pgpub 2004/0140677).

5. Claims 18-20, 22 and 23: Richmond teaches that all the components are connected to an integrated circuit (fig. 10, col. 6, line 20-col. 7, line 50), where the sensor has electrical connecting elements (fig. 6, part 78) and the valves have electrical connecting elements (fig. 2, parts 48 and 50). Richmond does not teach how the elements are electrically coupled to the integrated circuit. The examiner takes official notices that there are many common means to connect elements to a circuit board and the board to the machine, for example, using wire connections, plugs, receiving ports for plugs, grouping elements to one port, where the circuit board itself can be plugged into contacts, as evidenced by Hengelein ([0021]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used

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different common means to connect the sensor and valves to the integrated circuit, and the circuit can be plugged into a operating position in the washing machine.

Claim 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Richmond et al (U.S. 5,873,518) as evidenced by Hengelein et al (U.S. pgpub 2004/0140677) as applied to claim 22 above, further in view of in view of Faunce (U.S. 6,319,015) and Roese (U.S. pgpub. 2005/0106924).

6. Claim 23: See claims 1 and 18-22 above. Richmond teaches that the valve and the sensor has multiple leads (fig. 2), as seen above common electrical couplers are plugs and receiving slots (see claims 18-22 above). Richmond as evidenced by Hengelein does not show using a spring snap fit to locate and lock the plug in place. Faunce and Roese are both electrical connectors. Faunce teaches using spring snap fit locators for the electrical contacts (fig. 1, parts 14). Roese teaches using spring snap fits on a plug (fig. 1, parts 6 and 7, [0021]) and that there are receiving elements located on the socket to receive the spring snap fit tabs ([0022]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have placed a spring snap fitting on the socket as taught by Faunce and Roese and receiving ports for receiving the snap fits as taught by Roese in the coupling plugs of apparatus Richmond as evidence by Hengelein to have yield the predictable result of proper placement of the plug in the socket when the spring snap fit falls within the receiving port.

(10) Response to Argument

7. Response to argument a:

8. Applicant is arguing that one of ordinary skill will not directly mount the valves to the electrical interface because it would not be obvious to reduce the complexity of the machine by

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modifying the prior art. The prior art clearly teaches that the valves and sensors are coupled to the electrical interface (5,873,518, fig. 10, clearly shows the circuit, part 92 coupled to the valves, parts 30 and 32, and sensing device, part 72, where the drivers for the valves are directly mounted on the circuit, parts 116, 122 and the interface for the sensor, part 94). Also it is well within the skill level and obvious to one of ordinary skill in the art at the time the invention was made to have mounted the valves directly to the circuit board to have removed the need for coupling wires and connectors which would lead to the expected result of reducing complexity since there are few wires.

9. Applicant is arguing that their invention has some critical results of reducing the complexity by having the valves directly mounted to the circuit board. However the applicant has not shown that this is not within the skill level or obvious or unexpected to one of ordinary skill in the art to have directly mounted the valves to the body would reduce the need for connecting wires or couplers. Thus it would expectantly lead to simpler construction and reduce complexity since there are few components.

10. Applicant argues that the prior art does not teach that the valves are directly mounted on the circuit board. Richmond teaches that the circuit board is composed of many components, and they included the driver for the valves and the interface for the sensor (fig. 10). One of ordinary skill can conclude that the drivers and the interface are directly mounted to the electrical interface. Then having the valve body directly mounted to the valve driver (which is mounted on the circuit, fig. 10) is well within the skill level to reduce the need of wires or couplers to connect the valve body to the valve driver.

11. Response to argument b:

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12. The applicant argues that Hengelein (2004/0140677) does not make up for the deficiencies of Richmond (5,873,518). Applicant arguments about the deficiencies of Richmond are address above in response to argument section a.

13. Response to argument c:

14. The applicant argues that Roesse (2005/0106924) and Fraunce (6,319,015) does not make up for the deficiencies of Richmond (5,873,518). Applicant arguments about the deficiencies of Richmond are address above in response to argument section a.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Samuel A Waldbaum/

Examiner, Art Unit 1792

Conferees:

/Michael Cleveland/

Supervisory Patent Examiner, Art Unit 1792

/Anthony McFarlane/